

Recovery Plan Action Status

Plan Name: Recovery Plan for the Borax Lake Chub (*Gila boraxobius*)

Plan Status: Final

Plan Date: 04-Feb-87

Lead Agency: USFWS

Lead Office: Oregon Fish And Wildlife Office

(503)
231-6179)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Borax Lake chub (<i>Gila boraxobius</i>)	1	11	Secure the 160-acre parcel of land surrounding Borax Lake (T37S, R33E, Sec. 14).	Complete	Prior to FY 1995	Prior to FY 1995	U.S. Fish and Wildlife Service, Land Acquisition Program, The Nature Conservancy	Acquisition	Contract	TNC entered into a 10 year lease in 1983 which gave them management authority. The land was purchased by TNC in 1993.
Borax Lake chub (<i>Gila boraxobius</i>)	1	12	Secure the 160-acre parcel of land to the north of Borax Lake (T37S, R33E, Sec. 11).	Complete	Prior to FY 1995	Prior to FY 1995	U.S. Fish and Wildlife Service, Land Acquisition Program, The Nature Conservancy	Acquisition	Contract	TNC acquired the land to manage it for conservation purposes in 1993.
Borax Lake chub (<i>Gila boraxobius</i>)	1	13	Withdraw Borax Lake waters from appropriation.	Partially Complete	Prior to FY 1995		Oregon Department of Fish and Wildlife, The Nature Conservancy	Acquisition: Withdrawal	Contract	With TNC's acquisition, surface waters on their land cannot be appropriated. ODFW filed rights in 1991 in order to insure maintenance of Borax Lake elevation. Groundwater is still not protected. There are no direct costs to withdraw water from appropriation.
Borax Lake chub (<i>Gila boraxobius</i>)	1	211	Maintain check dams as long as necessary.	Obsolete	Prior to FY 1995	FY 2000 - FY 2004	Oregon Department of Fish and Wildlife, U.S. Bureau of Land Management, The Nature Conservancy	Management: Habitat Maintenance and Manipulation	Contract	The Check dams are still in Place, but appear unnecessary as the area has revegetated and outflows have shifted more to the south (Williams and McDonald 2003).

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Borax Lake chub (Gila boraxobius)	2	212	Remove check dams when natural barrier has been restored.	Obsolete	Prior to FY 1995	FY 2000 - FY 2004	The Nature Conservancy	Management: Habitat Maintenance and Manipulation	Contract	Task may not be completed until FY4 or FY5. Check dams appear no longer necessary (Williams and McDonald 2003). Removal may not be necessary, as the area is re-vegetated.
Borax Lake chub (Gila boraxobius)	2	22	Fill in middle and lower portions of ditch between Borax Lake and Lower Borax Lake.	Complete	Prior to FY 1995	FY 2000 - FY 2004	U.S. Bureau of Land Management, The Nature Conservancy	Management: Habitat Maintenance and Manipulation	Internal Field Assistance	Task will be completed when natural marsh is re-established and manipulation of water flows are no longer flows in the southwest ditch. It is partially filled with silt and vegetation. Williams and McDonald rate this action as fully implemented in 2003.
Borax Lake chub (Gila boraxobius)	2	31	Erect a fence around the 640-acre critical habitat parcel.	Ongoing Current	Prior to FY 1995		U.S. Bureau of Land Management	Management: Habitat Maintenance and Manipulation	Internal Field Assistance	Fence has been erected by BLM. BLM plans to reconstruct portions of the fence. The fence appears to be maintained. Additional work to limit vehicle entry is needed. BLM has plans to install vehicle barriers.
Borax Lake chub (Gila boraxobius)	1	32	Prevent alteration of Borax Lake shoreline.	Ongoing Current	Prior to FY 1995		Oregon Department of Fish and Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy	Management: Habitat Maintenance and Manipulation	Contract	In the past, the shoreline was chipped away to get water to irrigate area for livestock and was ceased when TNC acquired the land. Current concerns are related to vehicles accessing and damaging the shoreline. BLM is interested in working with TNC to restrict access to the area.

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Borax Lake chub (Gila boraxobius)	2	33	Prevent access road improvements.	Ongoing Current	Prior to FY 1995		U.S. Bureau of Land Management	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	BLM does not know of maintenance of the access road (Williams and McDonald 2003). No direct cost associated with this action.
Borax Lake chub (Gila boraxobius)	3	34	Close critical habitat to vehicle use.	Not Started			U.S. Bureau of Land Management, The Nature Conservancy	Management: Habitat Maintenance and Manipulation	Internal Administrative	No direct cost as this is an administrative action.
Borax Lake chub (Gila boraxobius)	3	35	Close critical habitat to livestock grazing.	Ongoing Current	Prior to FY 1995		U.S. Bureau of Land Management, The Nature Conservancy	Management: Land Use	Internal Technical Assistance	No direct cost associated with this action.
Borax Lake chub (Gila boraxobius)	1	36	Close critical habitat to mineral or geothermal exploration.	Complete	Prior to FY 1995	FY 2000 - FY 2004	U.S. Bureau of Land Management	Acquisition: Easement	Internal Administrative	Steens Cooperative Management Act of 2000 withdrew Borax Lake and surrounding Federal land area from mineral entry or geothermal exploration or development. The withdrawal affects BLM land, but would not affect surrounding private lands. No direct cost as this is an administrative action.
Borax Lake chub (Gila boraxobius)	2	37	Prevent use of herbicides and insecticides within critical habitat.	Ongoing Current	Prior to FY 1995		Oregon Department of Fish and Wildlife, U.S. Bureau of Land Management, The Nature Conservancy	Management: Habitat Maintenance and Manipulation	Internal Field Assistance	TNC and BLM do not plan to use herbicides or insecticides in the area (Williams and McDonald 2003). No direct cost as this is an administrative action.
Borax Lake chub (Gila boraxobius)	3	41	Monitor water quality.	Ongoing Current	Prior to FY 1995		The Nature Conservancy	Acquisition	Contract	For first two years monitor water monthly; quarterly thereafter. Several studies were completed during the 1980s and 1990s (Williams and McDonald 2003).

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Borax Lake chub (Gila boraxobius)	2	42	Monitor physical characteristics of the habitats.	Ongoing Current	Prior to FY 1995		Oregon Department of Fish and Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy	Acquisition	Contract	For first two years habitats should be monitored monthly, than at least four times per year. Several studies of physical characteristics have been completed over the years (see Williams and Mcdonald 2003 for list).
Borax Lake chub (Gila boraxobius)	2	43	Monitor fish population.	Ongoing Current	FY 2009		Oregon Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy	Research: Population Surveys	Contract	Seasonal population estimates during first two years; annually thereafter. Completed 1985-1997. Population estimates have been conducted annually 2005-2009.
Borax Lake chub (Gila boraxobius)	3	44	Monitor invertebrate populations.	Ongoing Current	Prior to FY 1995		Oregon Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy	Research: Population Surveys	Contract	For first year, monitor invertebrates monthly, every 2 or 3 years thereafter. Several studies of macroinvertebrates were completed. Rare snails and caddisfly were documented. No additional surveys have been conducted. (see Williams and Mcdonald 2003).
Borax Lake chub (Gila boraxobius)	3	51	Provide information to press. TV and radio.	Ongoing Current	Prior to FY 1995		Oregon Department of Fish and Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy	Other: Information and Education	Internal Administrative	No direct cost known for this action. Sveral articles and media coverage have occurred (Williams and Mcdonald 2003). Coverage event occurred in September 2006 with Oregon Public Broadcasting. TNC takes tours to the lake.

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Borax Lake chub (Gila boraxobius)	3	52	Widely distribute recovery plan.	Complete	Prior to FY 1995	Prior to FY 1995	Oregon Department of Fish and Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Endangered Species Division, The Nature Conservancy	Management: Habitat Maintenance and Manipulation	Internal Administrative	No direct cost, except perhaps postage fees, known for action. FWS to provide other agencies with copies for distribution. Widely distributed when completed in 1987 (Williams and McDonald 2003).
Borax Lake chub (Gila boraxobius)	2	61	Enforce applicable State and Federal laws.	Ongoing Current	Prior to FY 1995		Oregon Department of Fish and Wildlife, Oregon State Police, Game Division, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Law Enforcement Division	Other: Law Enforcement	Internal Field Assistance	Laws have been enforced. Remote area not typically visited by law enforcement personnel (Williams and McDonald 2003).
Borax Lake chub (Gila boraxobius)	3	62	Evaluate effectiveness of applicable laws and regulations.	Ongoing Current	Prior to FY 1995		Oregon Department of Fish and Wildlife, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, Endangered Species Division	Other: Law Enforcement	Internal Administrative	Task completed every two years. Reviews have been completed but not analyzed or published (Williams and McDonald 2003).